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November 17, 2000

Federal Emergency Management Agency
Mr. Michael K. Buckley, P E., Director
Technical Service Division
Mitigation Directorate
Room 423
500 "C" Street, S.W.
Washington, DC 20472

RE: Lake Murray Dam Flood Modeling

Dear Mr. Buckley:

This is in response to your letter dated October 20, 2000 to [redacted] that has been referred to me for a response, in which you request, among other things, that we model certain inflow hydrographs for a range of flood conditions. Specifically, you have provided eleven different flood events lasting up to 270 hours and have asked that we evaluate the effects of Lake Murray on flood discharges on the Saluda and Congaree Rivers.

While we can run the input hydrographs that you have supplied, we have some questions as to their meaning and validity. Specifically, we question whether a response to your specific request will properly address whether your September 26th map correctly reflects the impact of the Dam on peak flows on the Congaree River at Gervais Street up through the 1936 flood. Before we proceed to take action on your request, we would like to discuss the following:

> FEMA assumptions used to develop your inflow hydrographs, and why they should be used.
>
> The validity of FEMA's conclusions regarding the pre-1936 peak flows at Gervais Street. (It is important to note that in 1936, the only time that Lake Murray has risen above the 360 foot mark, there were only four spillway gates in place at the time and no record exists of the operating plan in place at the time nor how the decision to spill was made. As you know, we now have the Flow Forecasting Model which tells us the what the inflow into the Saluda River drainage basin is at any given time, and provides a mechanism for decision-making.)

If we were to run the requested modeling, we would propose to use a Army Corps of Engineers product known as BRASS (Basin Runoff And Stream flow Simulation) which is a dynamic routing model that has been uniquely modified for the Lake Murray basin (the "Flow Forecasting Model") Our contractor advises us that it would take from three to four weeks to accomplish this task. We are somewhat reluctant to turn over the model, as it is proprietary, but we would be happy to provide sufficient input/output and any assumptions or back up data to satisfy the Agency that the model and any results generated therewith are valid

Regarding any operation and maintenance plan that would be used, the procedures to be used during any given rainfall event would be determined on a case-by-case basis based on the Flow Forecasting Model and decisions of management Under SCE&G's FERC License, the maximum

normal Lake elevation is 360' Plant Datum, and the project is operated so as to keep the Lake at or below 360', while not discharging (by hydro or spillway operations) any more than the inflow to the drainage basin at any given time.

As stated, we are pleased to provide whatever assistance we can as the Agency undertakes this important evaluation. Because FEMA regulations require that you have our input before your final determination, we are prepared to respond to your revised request very quickly.

If you have any questions, please feel free to call me at [redacted].

Sincerely,

[redacted]

Acting President & Chief Operating Officer

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November 17, 2000

Mr. Doug Bellomo
Federal Emergency Management Agency
Room 423
500 "C" Street
Washington, DC 20472

RE: Saluda Hydro Project (Lake Murray Dam)

Dear Doug:

I am writing to supplement and clarify the "Issues and Positions" paper that I sent to you on September 5, 2000. I want to paint a complete picture of project operations, particularly as they relate to flood control.

In the paper I make mention of a Normal Flood Protection Area from 358 feet msl to 363 feet msl that would yield approximately 400,000 acre feet of flood pool. While this is technically correct, we have, and continue to, operate the project in accordance with Exhibit H to the 1975 project application (Statement of the Proposed Operation of the Project Works). Pursuant to Exhibit H, the usual maximum elevation is 358 feet, and "the maximum permissible elevation as established by the Commission Order, Article 32, amended October 31, 1945, is 360 feet". The additional two (2) feet are utilized by the Company as a flood control measure and provides for the impoundment of approximately 4.3 BCF [approximately 100,000 acre feet]." In the event of a major flood event, the six spillways would be used in an effort to prevent the lake level from exceeding 360 feet. At some point, it is possible that inflow could exceed outflow from the spillways and the hyrdo generation and the lake would rise beyond 360 feet. In that case the lake would provide a significant pool up to, and perhaps beyond, 366 feet. In any case, there is the potential for downstream impacts at full spill and hydro outflow.

Regarding "Releases (cfs) within the NFPA," it was not accurate to state that there is a policy limiting spillway discharges to 10,000 cfs when the lake is below 363 feet, as I stated to you on our phone call this would depend on the in flow model runs at the time of the incident. As a prudent act we would try to spill as little water as possible. Additionally, any spillway rating curve should be viewed in the context of actual operations, not potential spill.

The 100-year flood at the mouth of the Saluda River, as defined in the June 1974 Special Flood Hazard Information Report is 105,000 cfs. This number could vary based on a number of factors. Also, USGS Gage 02169000 is located 8 miles downstream of the Saluda Dam.

Again, having more deliberately reviewed the paper, I wanted to make sure that you had as accurate as possible information on which to base any decisions that FEMA might make. To that end I have tried to clarify what was an attempt to compress a significant volume of complex data and analysis into a one page paper It is a summary and should be treated as such and should be viewed in its entirety. As always, we are happy to provide the underlying data and analysis, as available.

Sincerely,

[redacted]

Acting President & Chief Operating Officer